REMARKS

Claims 1-3, 8, 12, 13, 15, 16, 21, 25, 27, 28 and 33 under 35 U.S.C. § 103(a) as obvious over Rasmussen, U.S. Patent No. 5,995,146. Claims 4-7, 9-11, 14, 17-20, 22-24, 29-32 and 34-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants traverse the rejections and respectfully request reconsideration.

1. § 103 Rejections of Claims 1-3, 8, 12, 13, 15, 16, 21, 25, 27, 28 and 33

Claims 1-3, 8, 12, 13, 15, 16, 21, 25, 27, 28 and 33 stand rejected under 35 U.S.C. § 103(a) as obvious over Rasmussen. Applicants respectfully submit that the Examiner has not made a prima facie case of obviousness with respect to claims 1-3, 8, 12, 13, 15, 16, 21, 25, 27, 28 and 33. The Examiner has not shown that Rasmussen teaches:

- "modifying the value of the display position code of each slice of each of the received MPEG-encoded video streams as necessary" as recited in independent claim 1;
- "an interactive decoder adapted ... to modify the display position code of each slice of each of a received MPEG-encoded video streams as necessary" as recited in independent claim 12; and
- "means for modifying the value of the display position code of each slice of each of the received MPEG-encoded video streams as necessary" as recited in independent claim 25.

Indeed, the Examiner admitted that "Rasmussen fails to disclose the claimed modifying the value of the display position code of each slice of the received MPEG-encoded video stream as necessary." Final Office Action, October 22, 2002, pg. 3. In rejecting claims 1-3, 8, 12, 13, 15, 16, 21, 25, 27, 28 and 33 Examiner argued that "it would have been obvious a quick and efficient method (sic) for modifying the display position for MPEG slices would have been to modify the display position code of each

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slice ..." and that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rasmussen to include the claimed limitation to provide a quick and efficient means for modifying the display position of slices." *Id.*

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974) (emphasis added); *See also* M.P.E.P. § 2143.03. The Examiner has the burden of producing evidence to produce a prima facie case of obviousness. M.P.E.P. § 2142. Applicants respectfully submit that the Examiner has failed to show where the step of "modifying the display position" is taught or suggested anywhere in the prior art. The Examiner has merely concluded that the step would have been obvious to one of ordinary skill in the art without providing any evidentiary support whatsoever. The Examiner's conclusion without more cannot sustain his obviousness rejections.

In addition, the Examiner's assertion that it would have been obvious to one of ordinary skill in the art to modify Rasmussen by modifying the display position code of each slice is wrong. In fact, Rasmussen teaches *away* from modifying the display position code of each slice. Rasmussen in fact teaches that images are scaled and compressed so that they are displayed in the proper position on the display relative to other scaled images before the scaled images are combined. Specifically, Rasmussen teaches scaling an image and compressing the scaled image and providing a display location address for the scaled image in the transmitting nodes. *See* Rasmussen, Col. 2, lines 1-5. The scaled images are then transmitted to the receiver where they are combined in accordance with their display location address to form a combined image. *Id.* at lines 6-9. The combiner therefore receives the scaled images already in their proper position relative to each other as shown in Pictures 1-4 in Figure 1. Clearly, any modification of the display position code would cause images to overlap or otherwise be misplaced. Modifying the display position code would also be contrary to the stated objective of Rasmussen which states:

> It is still another object of the present invention to provide a video communications system, which determines and

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assigns a final display location of the video image prior to encoding and transmission to a receiving location.

Rasmussen, col. 2, lines 20-24.

Applicants respectfully submit that the Examiner has not made a prima facie case of obviousness as to claims 1-3, 8, 12, 13, 15, 16, 21, 25, 27, 28 and 33 and respectfully request favorable reconsideration.

2. Allowable Subject Matter

Applicants gratefully acknowledge the Examiner's recognition of allowable subject matter with respect to claims 4-7, 9-11, 14, 17-20, 22-24, 29-32 and 34-36. Applicants reserve the right to later amend these claims by rewriting them as independent claims at a later date if deemed necessary.

CONCLUSION

Applicants therefore respectfully submit that all pending claims 1-36 are in condition for allowance and request that the rejections to those claims be withdrawn. If any questions or issues remain, the Examiner is invited to contact the undersigned attorney, Enrique Perez, at his direct dial number (312) 913-2104.

Respectfully submitted,

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Appendix A

Marked up version of Amended Claims

3. The method for combining multiple MPEG-encoded video streams claim 1, wherein {said} the MPEG-encoded video streams are one of MPEG-1 encoded video streams and MPEG-2 encoded video streams.

Appendix B

Clean Copy of All Pending Claims

1. A method for combining multiple MPEG-encoded video streams, comprising:

receiving the multiple MPEG-encoded video streams;

determining a value for a display position code corresponding to a display position of each slice of each of the MPEG-encoded video streams;

modifying the value of the display position code of each slice of each of the received MPEG-encoded video streams as necessary; and

interleaving each slice of each of the MPEG-encoded video streams as modified into a single composite video stream.

2. The method for combining multiple MPEG-encoded video streams claim 1, wherein said display position code is at least one of a macroblock address increment variable length codeword and at least a byte of a slice startcode.

3. The method for combining multiple MPEG-encoded video streams claim 1, wherein the MPEG-encoded video streams are one of MPEG-1 encoded video streams and MPEG-2 encoded video streams.

4. The method for combining multiple MPEG-encoded video streams of claim 1, wherein said display position code includes a macroblock address increment variable length codeword, said macroblock address increment variable length codeword of each slice of each of the MPEG-encoded video streams contains 3 bits having a corresponding increment value of one of 2 and 3.

5. The method for combining multiple MPEG-encoded video streams of claim 4, wherein said modifying includes modifying the value of the macroblock address increment variable length codeword of each slice of each of the MPEG-encoded video streams to be modified to an increment value of between 22 and 33 inclusive.

6. The method for combining multiple MPEG-encoded video streams of claim 5, wherein said modifying includes modifying the 3 bits of said macroblock address increment variable length codeword as necessary and adding a byte to result in an 11-bit modified macroblock address increment variable length codeword.

7. The method for combining multiple MPEG-encoded video streams of claim 1, wherein said display position code includes a macroblock address increment variable length codeword having a first number of bits and wherein said modifying the display position code of each slice of each of the MPEG-encoded video streams to be modified results in a modified macroblock address increment variable length codeword having a modified number of bits, said modified number of bits modulo 8 is equal to said first number of bits modulo 8.

8. The method for combining multiple MPEG-encoded video streams of claim 1, wherein said interleaving each slice of each of the MPEG-encoded video streams as modified into a single composite video stream is according to the display position code as modified of each slice of each MPEG-encoded video stream.

9. The method for combining multiple MPEG-encoded video streams of claim 1, wherein said MPEG-encoded video streams are MPEG-1 encoded video streams, and wherein said display position code includes a macroblock address increment (MBAI) codeword, wherein said modifying the display position code of each slice of each of the MPEG-1 encoded video streams as necessary includes

selectively adding a number of MBAI_stuffing codes, said number of MBAI_stuffing codes ranging from 0 to 7.

10. The method for combining multiple MPEG-encoded video streams of claim 9, wherein said number of MBAI_stuffing codes is determined such that the macroblock address increment codeword maintains bit-alignment of the display position code within a byte.

11. The method for combining multiple MPEG-encoded video streams of claim 9, wherein said macroblock address increment codeword has a first number of bits and wherein said modifying the display position code of each slice of the MPEG-encoded video streams to be modified results in a modified macroblock address increment codeword and a predetermined number of MBAI_stuffing codes, the modified macroblock address increment codeword and the predetermined number of MBAI_stuffing codes combine to having a modified number of bits, said modified number of bits modulo 8 is equal to said first number of bits modulo 8.

12. A system for combining multiple MPEG-encoded video streams, comprising:

an interactive decoder adapted to determine a display position code for a display position of each slice of each of a received MPEG-encoded video streams and to modify the display position code of each slice of each of a received MPEG-encoded video streams as necessary, said interactive decoder further adapted to interleave each slice of each of the MPEG-encoded video streams as modified into a single composite video stream.

13. The system for combining multiple MPEG-encoded video streams of claim 12, further comprising a broadcast center for broadcasting the multiple MPEG-encoded video streams to said interactive decoder.

14. The system for combining multiple MPEG-encoded video streams of claim 12, wherein said interactive decoder is further adapted to modify the value of the display position code to maintain bit-alignment of the display position code within a byte.

15. The system for combining multiple MPEG-encoded video streams of claim 12, wherein said display position code is at least one of a macroblock address increment variable length codeword and at least a byte of a slice startcode.

16. The system for combining multiple MPEG-encoded video streams of claim 12, wherein the MPEG-encoded video streams are one of the MPEG-1 encoded video streams and MPEG-2 encoded video streams.

17. The system for combining multiple MPEG-encoded video streams of claim 12, wherein said display position code includes a macroblock address increment variable length codeword, said macroblock address increment variable length codeword of each slice of each of the MPEG-encoded video streams contains 3 bits having a corresponding increment value of one of 2 and 3.

18. The system for combining multiple MPEG-encoded video streams of claim 17, wherein said interactive decoder is further adapted to modify the value of the macroblock address increment variable length codeword of each slice of each of the MPEG-encoded video streams to be modified to have a corresponding increment value of between 22 and 33 inclusive.

19. The system for combining multiple MPEG-encoded video streams of claim 18, wherein said interactive decoder is further adapted to modify the 3 bits of said macroblock address increment variable length codeword as necessary and add a byte to result in an 11-bit modified macroblock address increment variable length codeword.

20. The system for combining multiple MPEG-encoded video streams of claim 12, wherein said display position code includes a macroblock address increment variable length codeword having a first number of bits and wherein said interactive decoder is further adapted to modify the display position code of each slice of each of the MPEG-encoded video streams to be modified to result in a modified macroblock address increment variable length codeword having a modified number of bits, said modified number of bits modulo 8 is equal to said first number of bits modulo 8.

21. The system for combining multiple MPEG-encoded video streams of claim 12, wherein said interactive decoder is further adapted to interleave each slice of each of the MPEG-encoded video streams as modified into a single composite video stream in accordance with the display position code, as modified, of each slice of each MPEG-encoded video stream.

22. The system for combining multiple MPEG-encoded video stream of claim 12, wherein said MPEG-encoded video streams are MPEG-1 encoded video streams, and wherein said display position code includes a macroblock address increment (MBAI) codeword, wherein said interactive decoder is adapted to modified the display position code of each slice of each of the MPEG-1 encoded video streams as necessary by selectively adding a number of MBAI_stuffing codes, said number ranging from 0 to 7.

23. The system for combining multiple MPEG-encoded video streams of claim 22, wherein said interactive decoder is adapted to determine said number of MBAI_stuffing codessuch that the macroblock address increment codeword maintains bit-alignment of the display position code within a byte.

24. The system for combining multiple MPEG-encoded video streams of claim 22, wherein said macroblock address increment codeword has a first number of bits and wherein said interactive decoder is adapted to modify the display

position code of each slice of each of the MPEG-encoded video streams to be modified to result in a modified macroblock address increment codeword and a predetermined number of MBAI stuffing codes, the modified macroblock address increment codeword and the predetermined number of MBAI_stuffing codes combine to have a modified number of bits, said modified number of bits modulo 8 is equal to said first number of bits modulo 8.

25. An interactive decoder for combining multiple MPEG-encoded video streams, comprising:

means for determining a value for a display position code corresponding to a display position of each slice of each of a received MPEG-encoded video streams;

means for modifying the value of the display position code of each slice of each of the received MPEG-encoded video streams as necessary; and

means for interleaving each slice of each of the MPEG-encoded video streams as modified into a single composite video stream.

26. The interactive decoder for combining multiple MPEG-encoded video streams of claim 25, wherein said modifying means comprises means for modifying the value of the display position code to maintain bit-alignment of the display position code within a byte.

27. The interactive decoder for combining multiple MPEG-encoded video streams of claim 25, wherein said display position code is at least one of a macroblock address increment variable length codeword and at least a byte of a slice startcode.

28. The interactive decoder for combining multiple MPEG-encoded video streams of claim 25, wherein said the MPEG-encoded video stream are one of MPEG-1 encoded video streams and MPEG-2 encoded video streams.

29. The interactive decoder for combining multiple MPEG-encoded video streams of claim 25, wherein said display position code includes a macroblock address increment variable length codeword having 3 bits with a corresponding increment value selected from the group consisting of 2 and 3.

30. The interactive decoder for combining multiple MPEG-encoded video streams of claim 29, wherein said modifying means includes means for modifying the value of the macroblock address increment variable length codeword of each slice of each of the MPEG-encoded video streams to be modified to have a corresponding increment value of between 22 and 33 inclusive.

31. The interactive decoder for combining multiple MPEG-encoded video streams of claim 30, wherein said modifying means includes means for modifying the 3 bits of said macroblock address increment variable length codeword as necessary and adding a byte to result in an 11-bit modified macroblock address increment variable length codeword.

32. The interactive decoder for combining multiple MPEG-encoded video streams of claim 25 wherein said display position code includes a macroblock address increment variable length codeword having a first number of bits and wherein said means for modifying the display position code of each slice of each of the MPEG-encoded video streams to be modified generates a modified macroblock address increment variable length codeword having a modified number of bits, said modified number of bits modulo 8 is equal to said first number of bits modulo 8.

33. The interactive decoder for combining multiple MPEG-encoded video streams of claim 25, wherein said interleaving means interleaves each slice of each of the MPEG-encoded video streams as modified into a single composite video stream according to the display position code as modified of each slice of each of the MPEG-encoded video stream.

34. The interactive decoder for combining multiple MPEG-encoded video streams of claim 25, wherein said MPEG-encoded video streams are MPEG-1 encoded video streams, wherein said display position code includes a macroblock address increment (MBAI) codeword, and wherein said modifying means modifies the display position code of each slice of each of the MPEG-1 encoded video streams as necessary including selectively adding a number of MPAI_stuffing codes, said number ranging from 0 to 7.

35. The interactive decoder for combining multiple MPEG-encoded video streams of claim 34, wherein said modifying means determines the number of MBAI_stuffing codes such that the macroblock address increment codeword maintains bit-alignment of the display position code within a byte.

36. The interactive decoder for combining multiple MPEG-encoded video streams of claim 34, wherein said macroblock address increment codeword has a first number of bits and wherein said modifying means modifies the display position code of each slice of each of the MPEG-encoded video streams to be modified to result in a modified macroblock address increment codeword and a predetermined number of MBAI_stuffing codes, the modified macroblock address increment codeword and the predetermined number of MBAI_stuffing codes combine to have a modified number of bits, said modified number of bits modulo 8 is equal to said first number of bits modulo 8.